137, 824

Southeast Salish
Coeur d'Alene

[Latin botanical names of plants occurring in Coeur d'Alene territory have not been excerpted in this category, but may be found throughout the source in category 116--Analyst.]

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TERRITORY

GEOGRAPHY

133 137 361 The Sanpoil lived in a region consisting mainly of treeless deserts and subject to great ranges in temperature (Plate 4). In the extreme northern and eastern portions of their territory the hills were clad with evergreens but these areas were used only for hunting. All permanent settlements were on the Columbia river since there the climate was milder, driftwood was available for fuel, water was always at hand in any quantity and travel was made easy by canoe.

131 133 All of eastern Washington and portions of adjoining states and British Columbia are drained by the Columbia and its tributaries. This great river has cut a huge gorge hundreds of feet deep through the lava plateau over which it flows. Where it is not confined within a canyon the banks are in the form of gravel terraces or benches, one above the other, which extend for considerable distances. It was on the lowermost series of these benches that most of the native villages were located. The plateau is a bed of basalt, 4000 feet deep in some places, formed by a succession of lava flows. This originally level plain has been considerably broken up by gorges cut by ancient streams and by the Columbia river at times when it was temporarily blocked from its main channel. These dry canyons are known as coulees. The greatest of these, the Grand Coulee, was cut by the river when the Okanogan glacier filled the upper Columbia valley at the "Big Bend." Minor uplifts have further modified the topography since the lava was laid down.

Sanpoil territory on the north extended into the physiographic province known as the Okanogan highlands. This is a northwestern projection of the Rocky mountains with elevations of 5000 and 6000 feet. The gently rounded hills are composed chiefly of granite and are fairly well wooded.[3]

132 The mean monthly temperature varies from 20 degrees F. in December to 66 degrees F. in July in the northern part of the territory (Republic). In the region south of the river the variation is from 24 to 74 degrees F., the extremes being reached in the same months (Wilbur).[4] Maximum summer temperatures of 115 degrees F. and minimum winter temperatures of minus 25 degrees F. have been recorded. Slightly less extreme figures are quite common.

The average annual precipitation over the whole of the former habitat is about 13 inches. Most of this falls in the winter months in the form of snow except in the extreme north (Republic) where the monthly distribution is very irregular and spread throughout the year.[4] Snow remains on the ground throughout the winter months.

Humidity is low; the annual mean percentage is probably not over 65.

Storm centers are normally north of the area, causing prevailing winds to blow up the Columbia river. In the late winter and early spring these warm, dry winds are called chinooks. They cause a rapid melting of snows.

137 Two plant life zones, the Upper Sonoran and the Arid Transition, are represented in this area. The former is typical of the Columbia plains or lava plateau

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[3]Saunders, *The Physical Geography of Washington*, pages 311-12, 314.

[4]Information furnished by Mr. Albert L. Seeman of the Department of Geography, University of Washington.

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while the latter characterizes the lower reaches of the Okanogan highlands. The most conspicuous plant of the Upper Sonoran of this region is the sagebrush (*Artemisia tridentata*). Other prominent plants include rabbit brush (*Chrysothamnus nauseosus*), antelope brush (*Purshia tridentata*) and dragon sagewort (*Artemisia Dracunculus*). The Arid Transition zone is divided into two subareas. The lower is characterized by bunchgrass (*Agropyron spicatum*) and often called the bunchgrass prairies. The upper division is typified by the presence of yellow pine (*Pinus ponderosa*) forests. The bunchgrass prairies appear a short distance north of the Columbia river and shade into the pine forests just north of Nespelem.[5]

HABITAT

The accompanying map (Figure 1) indicates the exact territory occupied by the Sanpoil and the names of adjoining peoples.

In northeastern Washington, about 85 miles south of the Canadian boundary, the Columbia river abruptly changes its course from south to westward. This has come to be known as the Big Bend of the Columbia, and the adjacent territory to the south of the river is called locally the Big Bend country. This general area, together with that included within the bend, was originally occupied by the Sanpoil. The confluence of the Sanpoil and the Columbia rivers marked the center of population but the geographical center was somewhat north of this point, near Lake Annum (Buffalo Lake). The southern boundary of the area was approximately a straight line running east and west at about 47° 40′ latitude. The eastern boundary intersected this line about 15 miles west of the town of Davenport. From that point it continued in a northeasterly direction to the bend of the river, or just west of the village called Peach. The boundary line then followed the river northward to Hunters, where it veered westward and connected with the Kettle river range of mountains; this range formed the remaining portion of the eastern territorial limit. A line drawn directly eastward from Republic to the Kettle river mountains would represent the northern boundary with fair accuracy. On the west the boundary line proceeded from Republic to Kartaro, then southward across the river toward Coulee City.

All villages were located along the Columbia river; therefore the boundary points on the river were much more clearly defined than in other parts of the territory. The former were determined by the actual extent of the villages, the latter merely by the greatest extent of territory covered during hunting and root gathering expeditions. The area thus recognized as properly belonging to the Sanpoil comprised about 1600 square miles.[6] Approximately 85 miles of the course of the Columbia were included and both sides of the river were occupied except for the short distance between Miles and Hunters.

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[5] Piper, *Flora of the State of Washington*, pages 36, 47-48.

[6] It is somewhat misleading, however, to speak of territory *belonging* to the Sanpoil and to designate boundaries as definite lines. The nature of boundaries and concepts concerning the territorial ownership are discussed at length in the section on political organization, pages 109.

283 the vast majority of coiled baskets were perfectly plain. Bear grass (sɔlɪka'stia),
285 imported from the district around Cusick, Washington, in Kalispel territory,
314 was the principal material used for imbricating. Designs were simple and iso-
415 lated. On the whole the coiling technique seems to have been rather poorly mastered. The Sanpoil baskets certainly did not compare in workmanship with those of the Yakima, for instance.

[137] Flat bags and soft baskets were twined of bast fibers. No rigid baskets were made by this technique. The materials used included Indian hemp, *Apocynum cannabinum* L., (spi'i'tsən); the inner bark of the Scouler willow, *Salix Scouleriana* Barratt, (pa'ɣpuɣilpᵘ); the bark of antelope brush, *Purshia tridentata* DC., (tsqua'sqələstən); and sagebrush bark, *Artemisia tridentata* Nutt., (qwɪl'qwɪlɛməni'lpᵘ, "blue brush").

283 Indian hemp was the most satisfactory and the most extensively used of
314 these materials. The plant was found in profusion in damp ground, where it grew to a height of about five feet. It was cut in the fall, cured in the sun for about two weeks, then tied into large bundles and stored for future use. The exact time that it was gathered depended upon the color desired. The fiber was light in color before the leaves fell, a dark red-brown afterwards. In preparing the hemp for use it was split down the hollow center with the thumb nail and the flattened piece bent double. The fiber was then easily removed by peeling from the middle toward each end. The rough fibers were dressed by scraping with a sharp piece of flint and rubbing between the palms. When all coarseness had been overcome the fine strands were rolled and twisted between the palm and the bare thigh into cord of the weight desired.

Other foundation fibers, although coarser, were spun in much the same manner.

285 Most woven bags and baskets were made in simple twine work. Two weft
314 elements were interwoven with one warp element at a time. In addition, some
415 twilling was done, but it was rare. In close twine work the wefts were forced together as tightly as possible; in open twine they were separated by an inch or two. Decorative effects were obtained by wrapping the weft with tule, the
[137] root of the western scouring rush. *Equisetum hyemale* L., (itsi'stən), a red bark obtained in the mountains, called putla'nx, dyed grasses, or by using hemp of two shades. Recently corn husks have been widely used as overlay.

The designs used consisted principally of triangular figures arranged in various combinations. Sometimes each triangle was a solid color, but multicolored units were used also.

Both soft bags and soft baskets were called qwɛi'p̓. The two were distinguishable primarily by the form of the bottom, folded in the former, circular in the latter. In the baskets the weaving proceeded in a clockwise direction, viewed from the outside. Two general types of flexible baskets were made. The one was in close twine, usually decorated, and about twice as deep as it was wide. In size there was considerable variation, the depth ranging from ten to twenty-four inches. Near the top of the basket usually were sewed two buckskin loops,

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close together, and on the opposite side near the bottom a third one. When a tumpline or carrying strap was used with the basket the ends were first passed through the two loops, then tied together at the loop on the opposite side. One variant of the soft basket was provided with a closing top. A buckskin thong was inserted into loops which were woven into the upper edge of the basket. It was called ta"mot. Extensive use was made of this type for holding such products as dried herbs, where it was desirable to keep the container closed.

The open twine soft basket was often made of the coarser fibers, and was never ornamented. Twilling was sometimes substituted for plain twining (Plate 2, Figure G). The dimensions reached twenty inches in diameter, thirty inches in depth. It served both as a burden basket for roots and as a storage basket for various products.

There was but one basic type of the soft bags with folded bottom, but various names were applied, depending upon size and function. All were closely woven. The most common form, which was designed for the storage of berries, roots or nuts, was wide and shallow, averaging twelve inches in depth and twice that in width. It was called npultæma'xun. Small square bags for holding household articles and trinkets were termed ntutumastí'ma'tən. Others, greater in depth than width (eighteen by twenty-four inches, for instance) were used for carrying personal belongings when travelling, and as general utility containers. These were almost invariably decorated.

Flat, flexible bags in openwork twining were made of the various fibers mentioned above and also of cattail, *Typha latifolia*, and tule, *Scirpus* sp. Such bags were used almost exclusively for the storage of food. These were more or less standardized in size at eighteen or twenty inches wide by thirty-two to thirty-six inches deep. Those made of tule or cattail were called ki'au. Their major use was found in the storage of dried salmon, venison and roots. They were essentially long, rectangular pieces of fabric doubled and sewed together at the sides with cord of Indian hemp. The weft courses were separated by about two inches.

Basketry dyes were made with both vegetable and mineral bases. The inner bark of the Oregon grape, *Berberis aquifolium* Pursh, (stcualsi'lp^{a}, "sour-plant") when boiled produced a yellow dye. Blue huckleberries were mashed to obtain a blue dye. Blue was also made by soaking in water the inner bark of a bush called qaqapui'lp^{a}, found along the Sanpoil river. Still another bark, qeqetumi'lp^{a}, provided a brown coloring matter when immersed in water for a short time. Various earths, notably those containing iron oxide, were pulverized and mixed with water to produce colors for dying grasses.

Baskets of cottonwood or pine bark (sloqəlke'n) were utilized extensively for the storage of berries and roots. Cottonwood was preferable. Since bark of the quality desired was usually far up the tree the latter was ordinarily felled as the first step in the process of manufacture. In some young trees the lower bark was sufficiently clear to be used, in which case it was not necessary to cut the tree, but the baskets were correspondingly small. A tree from one to two

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feet in diameter was commonly selected. After felling, one end of the log was raised from the ground and blocked in that position, so that the under side would be free. A section reasonably free of defects and knots was cut from the trunk. The length and manner of cutting depended upon the type of container that was desired. For a basket with but one vertical seam and a flat bottom, a section about four feet long was removed by making two circular cuts at either end and one cut lengthwise. Two round pieces of bark, equal in size to the diameter of the trunk were cut separately. These parts were then assembled. The body of the basket was sewed together along the side opening. Then hoops of willow were fitted and sewed to either end, and sometimes to the middle for added strength. Finally, one of the bark discs was sewed to one end of the cylinder to form the bottom. Later, after the basket was filled, the other disc was sewed to the top. Willow bark thread was used for all stitching.

The second type of bark storage basket had two longitudinal seams and a U-shaped bottom. For its manufacture it was necessary to remove from the log a section of bark twice as long as the proposed height of the basket (usually about four feet) but extending only half way around. Usually both halves were removed to provide material for two baskets. The long piece of bark was heated at the midpoint to permit bending without breaking, then doubled (with the weather side of the bark outside) and sewed up each side with willow cord. Willow hoops were added as in the preceding type. This form was the more common of the two. In both such holes as were present were patched with pieces of bark made to adhere on the inside with pine pitch. These bark storage baskets were superior to woven ones for food subject to attack by vermin or too great a loss of moisture.

Birch bark baskets (pi'na') served as emergency cooking vessels and as receptacles for berries while picking. They were made in a variety of shapes, mostly round in section but some were elliptical. Depth and diameter were approximately equal. A willow hoop was bound to the top of each type with parallel stitches of willow bark string. The seams were sewed with a zig-zag stitch using the same string. Loops of hemp cord or buckskin were often attached, to which a tumpline might be fastened. These baskets were never decorated or provided with covers.

Mats served a multitude of purposes and were manufactured in large numbers. Their use in the construction of houses and as bedding has been described above. Further important functions included the drying of berries and roots, the holding of food at meals, the covering of stored food or wood, and the wrapping of corpses. Two materials were employed in their fabrication: tule, and slough grass, *Beckmannia erucaeformis* (L.) (?), (staḍa'istən). Indian hemp was used as thread in the sewed mats, and as the weft in woven ones. Names were applied to the various mats according to their function. The house mat was called stuxwi'ptu, the bedding mat, swi'pdap, the food mat, sia'i'aks, and the berry drying mat, nəqali'mən. Mats made of slough grass were always twined. The weft courses of Indian hemp cord were separated from each other by one or two inches. The warps were twisted so that their natural markings would form a simple design of diagonal stripes. Such mats were four to eight feet long and as wide as

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pally to drive elk horn wedges (qaẓami·'n) in cutting trees and splitting large logs. The wedge was of a heavy piece of horn shaped at the smaller end. Wooden mauls, also used for driving wedges and for other purposes, were made from the hawthorn, *Crataegus brevispina* (Dougl.) Heller, (sxwa'ni'k). A section of trunk was selected where the diameter was about three inches and a branch protruded horizontally. The trunk was [illegible] each side of the limb, about four inches from it. This became the head of the maul. The branch, cut a convenient length, served as a handle. 322 324 412 [137]

Drills were slender, sharp pointed fragments of stone, preferably flint, fastened to a round wooden shaft. In use the drill was rolled between the palms in the manner of the fire drill. Sometimes the point was heated.

Stone knives (Figure 3, b) were made of dense materials such as flint, chert or jaspar. They were either single or double edged. Handles of horn were sometimes attached by boiling the horn and forcing the blade in the open end. Knives, like arrowheads, were chipped.

FIG. 3. (a) Hand hammers. (b) Knives. (c) Pestles.

Fire drills were exclusively of the type which was rolled between the hands. The pump or bow drill was not known. The drill (xu'limən) itself was permanent; the seat or hearth (xu'lıkıpᵘ) was not. Well seasoned straight grained pine was used in making the drill, or a small piece of willow root was bound tightly with hemp cord to a shaft of pine. The drill's length was twelve to twenty-four inches, its diameter about three-quarters of an inch. Hearths were improvised from pieces of jack pine. It was not customary to make more than one seat in each. When that seat was worn out the whole base was discarded and another made. The seat was a slight depression cut into the wood, with a notch at either side. Dry grasses of various sorts or the shredded bark of the abundant antelope brush were used as tinder. Usually after two or three moments of vigorous drilling and careful blowing fire (stukı'uk) was produced. Very often two men operated the drill to shorten the process. 372 412

The slow match (stukuwi'nkup) was relied upon almost exclusively while travelling, when fires had to be remade often. Sage brush bark was twisted tightly and tied, in lengths of two or three feet. A good slow match would hold fire for two or three days. 372

At permanent villages fires were almost never allowed to go completely out. At night the camp fire was banked with root wood so that it would smoulder until morning. The principal fuel used was driftwood. This could be easily obtained and required little cutting or breaking. The kind of wood with which the

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CLOTHING AND PERSONAL DECORATION

DRESS

177 286 291 The Sanpoil, according to native testimony, made use of three distinct modes of dress during successive historical periods. Information relating to the presumably aboriginal type is now almost purely traditional. Even John Tom could ascribe its use to no definite generation. The garments of this period were distinctive both in material and fabrication, being woven from bast fibers. The style of dress which replaced the woven garments involved a considerable use of buckskin, without tailoring. This period ended, it seems, within the lifetime of John Tom's parents. The recent period was characterized by tailored buckskin clothing of essentially Plains type. Its ultimate point of origin was undoubtedly the Plains, and it reached the Sanpoil as a part of the general complex of traits associated with the horse.

281 286 291 The aboriginal dress seems to have been scanty indeed. In the summer men discarded all clothing except the breechcloth, and even that was removed while travelling alone or in the company of men. Upon reaching a settlement a temporary cloth was made of a piece of inner bark of the willow, or the penis and scrotum were simply wrapped and tied with a similar piece of bark. No foot covering was worn. Women wore both a poncho-like garment and breechcloths or aprons, but no other clothing. The winter dress of men and women was very much alike. Women retained the type of garment worn in the summer, and men wore an identical one. These were woven of the inner bark of the western clematis, [137] *Clematis ligusticifolia* Nutt., (q̇ɑtsȧsuni'na', "tangle-owl"), antelope brush, *Purshia tridentata* DC., (tsqua'sqələstən), or slough grass, *Beckmannia erucaeformis* (L.) (?), (staq̇ai'stən), and Indian hemp, *Apocynum cannabinum* L., (spi'i'tsən). The [283] shredded bark, sometimes mixed with the hair of the deer, was rolled on the thigh to form cord which was used as the warp of the garment. The weft was always 286 of Indian hemp cord. The garment was woven in rectangular shape, about two 294 by four feet in size, by simple twining. A diamond shaped opening was left in the middle of the piece through which the head might be slipped. Sometimes the sides were sewed together at the lower ends, but more commonly the front and back were held against the body with a belt of cord. The edges of the front were folded over the edges of the back. Breechcloths (nlɑkwe'pustxən) were always worn with this garment, since it did not fall far below the waist. These were 281 woven similarly to the upper garment. Women wore breechcloths both in front 286 and back; men wore only one, sometimes made of fur rather than [illegible]en. Leg- 291 gings woven entirely of hemp, rectangular in shape, and held in p[illegible] hemp cord, were worn exclusively by women. When men wore leggin[illegible]ere of fur, usually the whole skin of some small animal wrapped around t[illegible] with the hair inside. Fur robes (si·'tsən) presumably were used when the weather was severe. This completed the attire, or so informants claimed. It seems inconsistent that leggings should have been worn while the feet were left bare, but it must be remembered that moccasins require considerable tailoring, whereas the leggings were simply convenient sized pieces of fur.

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for receiving the main shaft was hollowed in the fork. A sharp point of bone was attached to the head of the foreshaft, giving the whole the shape of a Y. The point was made fast to the body by wrapping with cord of Indian hemp and the application of pine pitch. Pieces of bone suitable for use as spear points were obtained by heating in a fire a section of bone, preferably from the leg of a deer, until it splintered. Fragments of approximately the correct size were chosen and shaped with stone scrapers. Shafts were made of fir, selected for straightness and freedom from knots. In some cases poles seem to have been used after merely removing the bark and in other instances the pole was apparently split down the middle and each half scraped and worked until an elliptical cross section was obtained, one pole thus furnishing two shafts. The shaft was detachable from the foreshaft which held the point, but connected to it by a short cord. The end selected for attachment to the foreshaft was rounded and tapered to fit snugly but not tightly into the socket. The connecting cord was an extension of the one binding the foreshaft to the point. Two or three feet of slack was allowed between the point and the shaft. When a fish was speared the shaft left the socket and the fish could be played and drawn in by means of the cord and the shaft. The length of the shaft varied, depending upon the place at which it was to be used, from fifteen to twenty feet or sometimes more.

A large three-pronged spear (wi'tcka) (Figure 8, a) was used for large salmon, principally the chinook. Its use was restricted to instances where an approximately vertical thrust could be obtained. It was therefore used extensively in fishing from canoes. The foreshaft consisted of a socket with three prongs; a center prong which was tapered and projected in line with the mainshaft, and two side prongs at angles of about thirty degrees to the center prong. The socket for the main shaft was hollowed in the large end of the middle prong, which was made of hardwood of any variety. The small end was tipped with a point of bone, obtained in the same manner as for the small spear. The two side prongs were of ocean spray, *Holodiscus discolor* Max., (mutc'mutci'lp^{a}) a resilient wood; they were somewhat longer than the center prong, or about fifteen inches. These prongs were pointed and each was fitted with a single barb. The barbs were of bone and bound with cord of Indian hemp. Heavy cord of the same material was used to fasten the side prongs to the center one, and extended, as in the case of the small spear, to be attached to the main shaft. This shaft was similar to that of the small spear, both in shape and length.

TRAP FISHING

By far the most productive mode of taking fish, especially salmon and trout, was by means of traps. Within Sanpoil territory the principal traps were located near the mouth of the Sanpoil river, at npui'lux^{a}, and below the falls on the Nespelem river, at nspi'lem. The traps in the smaller streams, however, also produced very considerable quantities of fish. Usually only a single trap was placed in each stream, but in the Sanpoil and Nespelem rivers sometimes two or even three traps could be profitably maintained. Kettle Falls, in Colville terri-

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one was placed on the bank at the edge of the water, one on the opposite bank, and if a third was used, it usually was set at approximately the middle of the stream. Skilful workmen were required for this duty, since it often involved working in deep water. The cross poles connecting the supports were raised about two feet above the surface of the water. Sections of saplings were cut the necessary length to reach from the transverse poles to the bed of the stream and placed in this position at intervals of about twelve inches. In the meantime other men were occupied with weaving the fencing. Young branches of the Scouler willow, *Salix Scouleriana* Barratt, (si·'lu, "young growth") were used exclusively for this purpose. The withes used for the weft were made flexible by twisting and rolling on the thigh; this task fell to the older men who were unable to take part in the heavier work.

The prepared weft elements were woven with the more rigid warps, by the open twine method, into sections of the required width and a length of approximately twenty feet. These were called ɫaxe". The sections were rolled up, carried to the site of the weir, and unrolled in upright position against the previously laid supports. Workmen, wading and swimming in the stream, securely fastened the fencing to the foundation. Care was taken to leave no open spaces between the bottom of the weir and the bed of the stream. A row of stones was laid along the bottom of the weir on either side, to anchor it in place. All apertures due to irregularities in the stream bed were filled. A weir was never located where the stream bottom was covered with large boulders, for such a situation rendered it impossible to close effectively all the holes below the weir. The fish were certain to find openings between the rocks that would permit escape. Likewise, a weir built upon a sandy stream bed was of no value, for the sands would soon wash out and leave holes beneath.

The lower weir was similar in construction to the main one, but smaller. It was less carefully constructed and extended only slightly above the surface of the water. At several points openings were left of sufficient size to permit a large salmon to enter. The two weirs thus formed a large enclosure in which fish accumulated during the night. In ascending the stream they would find their way through the openings in the lower weir but would be repulsed by the one above. Since all the efforts of the fish were bent upon travelling upstream to spawn, the smaller weir, though low and containing openings, was a sufficient barrier to keep them within the enclosure.

To facilitate removal of the fish from this large area, a basket-like trap (skʷmuqu'aɬ) (Figure 9) was built against the bank at one end of the lower weir. The usual size was three feet wide, six feet long and three feet deep. An aperture was provided in the end of this trap, and from that opening a deflecting barrier extended at an angle upstream until it reached within a few feet of the opposite bank. Thus the opening to the trap was at the point of a V-shaped figure formed by the barrier and the shore. When the large trap was to be emptied several men waded into the water and drove the fish into the small trap, the deflecting weir assisting them by directing them to the opening. Other workers clubbed the fish and threw them onto the bank as fast as they accumulated, thus avoiding piling

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224 Ground squirrels and other burrowing animals were often drowned out of their holes. If alive when they emerged they were killed with a club.

Rabbits were killed in large numbers, to provide fur for caps, mittens and blankets and for food. They were usually taken by means of the bow and arrows. When a rabbit was found poised, ready to jump, the hunter might walk slowly around and around the animal, gradually approaching closer, and repeating over

[411]

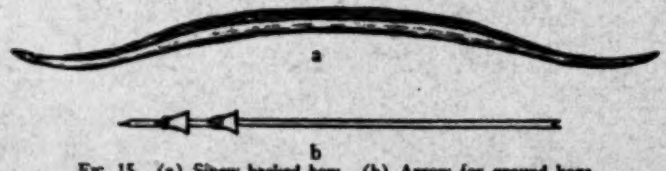

FIG. 15. (a) Sinew backed bow. (b) Arrow for ground hogs.

and over, "You are a chief; you are a great chief," etc. Soon the rabbit would lie down and allow the hunter to pick it up.(1)

[136] The turtles of the region (*Clemmys marmorata* and *Chrysemys marginata belli*) were taken for food purposes.

223 Eagles were caught by lying in wait at their nests. In order to reach their nests, which were built in crevices on the faces of cliffs, it was necessary to descend and return by means of three strand willow bark rope made fast at the top. As the birds returned to the nest they were grasped by the legs and killed. Sometimes only the young birds were taken. It is uncertain whether the young ones were raised in captivity or not. Eagles were sought especially for their feathers which were used on arrows and in ceremonial dress, but also for their flesh which was eaten.

Waterfowl were only rarely killed, due to the difficulty involved. The young were often taken from their nests before learning to fly, not to be kept, but for immediate consumption as food.

Grouse were caught with a simple snare made of Indian hemp cord. The snare was suspended over one of the trails where the birds were accustomed to run.

Various other birds were occasionally killed with the bow and special arrows.[18]

231 Raccoons were kept as pets.

BOWS AND ARROWS

237 Since bows and arrows were used almost exclusively in hunting, they will be 322 described at this point. Three types of bow (tcukwi-'nk^{u}) were utilized. In order 411 of importance they were the sinew-backed bow, the common or self bow, and the elk rib bow.

[137] Syringa, *Philadelphus Lewisii* Pursh, (wuɣwa'xailp^{u}), or ocean spray, *Holodiscus discolor* (Pursh) Maxim, (mətsmətsi'lp^{u}), was used in the manufacture of

[18]See page 89.

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the sinew-backed bow. A branch of the proper size was selected and split down the middle. This was done by splitting one end slightly with an edged implement, then bending the branch, little by little, over the knee which caused it to split evenly throughout its length. The bark and the pith having been removed, the pieces were set aside to dry in the sun for about a week. Then followed a careful working of the rough pieces to a uniform elliptical cross section measuring about one and one-half by three-quarters of an inch at the center, tapering toward the ends. A fragment of deer bone with a sharpened edge was used for scraping. The length was cut to approximately three feet. The shaping constituted the next step. The proper form was achieved after a thorough soaking in water, using the fork of tree branches to provide leverage in bending, and strong cord to hold the bow in shape until dry. Drying took two or three weeks. The final shape was uniformly that shown in Figure 15,a. The bow was then ready for the application of the sinew. Glue was prepared by boiling salmon skin or deer hoofs. The sinews, carefully selected fibers from the leg of the deer, were made ready. The backing of sinew was built up in several layers, sometimes as many as five. First the back of the bow was covered with glue, followed by the application of the first layer of sinew extending along the middle of the bow from within about three inches of one end to a corresponding point on the other end. Another coating of glue was added and a second layer of sinew, this one somewhat wider, but the same length. This was continued until the back of the bow had been completely covered, except at the very ends, and had become hemispherical in cross section. When dry, the hand hold, (which was not smaller in circumference), was wrapped with spirally cut bark of the wild cherry, *Prunus emarginata* (Dougl.) Walp., (pukhmi'lpᵘ), for about six inches, held in place with glue or pine pitch. Each end of the bow (the portions not covered with sinew) was wrapped likewise. Finally, the whole bow was rubbed with sap from the sti'qwiluqᵘ tree to counteract checking of the wood. The sap was applied after heating the bow, or after melting the sap itself. When dry it left a smooth and glossy finish.

The plain bow (Plate 2, Figure A) was made of ocean spray, sometimes in the modified "cupid's bow" shape characteristic of the sinew-backed type, but often in the form of a simple curve. One-half only of the branch selected was used for a single bow, but in this case the back of the bow retained the contour of the pole from which it was fashioned; only the belly was worked, being scraped almost flat, and the ends tapered. Other details of manufacture were identical with the previously described type, except of course, for the addition of sinew. The cherry bark wrappings were sometimes omitted, especially in bows made for temporary use. Embellishments consisting of concentric circles, in pairs or rows, incised and filled with paint, were added to the bellies of bows of either type. Also crude drawings of both geometrical and realistic nature were painted on with a blue-green pigment obtained from the viscera (?) of deer.

Few details concerning the bow of elk rib could be obtained. It is certain that it was little used. The rib was used without much shaping, except at the end where it had been attached to the backbone, and was consequently enlarged. Deer ribs were not used; they were too short.

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Bow strings were made of deer sinew or Indian hemp. The latter was satisfactory only for plain bows and light use. Sinews used in fabricating strings were taken from the back of the deer. The sections of sinew were soaked, dressed and spliced together, one end being tied to a stake in the ground for convenience in working. They were spliced and re-spliced until all knots were eliminated. The strands were then rolled between the palm and the thigh until tightly twisted. The finished cord was secured in a stretched position and allowed to dry two or three days, after which it was ready for use. The cord was permanently tied to one end of the bow, but only looped over the other, and loosened when not in use to avoid warping the bow.

Arrow shafts were made of two different woods.[16] Elder (?) (tcuqtcuqti'lp^{s}) was satisfactory for arrows to be used for small game, or only temporarily. Bone scrapers and straighteners of stone were used in fashioning shafts. Bending formed a part of the process. This was accomplished by holding the shaft between the teeth and applying pressure with the hands. The length varied from twenty to thirty inches. The diameter, averaging three-eighths of an inch, was uniform throughout the length of the shaft except where the feathers were attached, where it was slightly smaller. Hawk or eagle feathers, preferably the latter, supplied the vaning. The feathers were split into halves by tearing from the tip to the base, and most of the quill was shaved away from each part. A smooth edge and the proper shape were achieved by singing with a coal of fire. Three vanes were used on each shaft, spaced equidistant and parallel to each other. Pine pitch and sinew were used to bind the feathers to the shaft.

Arrow points were chipped from flint, chert, and other hard rocks found in abundance along the banks of the Columbia river. In addition, bone points were occasionally used. A stone point was always provided with a stem which was fitted into a notch in the end of the shaft, and anchored there with pitch and sinew. The point was placed in the same plane with the bow string notch. Informants stated that barbed points were not used, but I have discovered heads of this type in the shell mounds at na'a'q^{s} on the Columbia.

Arrows for small game and for use in games were sometimes made without vaning or separate points. The shaft itself might be sharpened, or left blunt, depending upon the use. Arrows used in games, and for certain birds, were made of rye grass, *Elymus* sp., (puspustsni'ultcn, "flat grass"), and provided with wooden points of syringa (Plate 2, Figures B,C). Sections of rye grass were cut, straightened by bending in the hands, and notched for the bow string. The points were fashioned differently according to the use to which they were to be put, and attached to the shaft by forcing the end of the latter into the pithy center of the wooden point. Vaning was unnecessary because the relatively heavy wooden point as compared to the light shaft carried the arrow in a straight course.

Quivers were most commonly of buckskin or coyote skin, about two feet in length. Fringes provided embellishment. Capacities varied, up to fifty arrows. Only the single quiver was known.

[16] Possibly three, the uncertain material being ocean spray.

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be disposed of. All men, women and children assisted. Several trips were usually required for such transportation. Roots were placed in permanent storage places, not re-stored in the fall. Old women who were not needed at the fishing grounds sometimes remained on the south side of the river somewhat longer, occasionally throughout the entire fishing season, and continued to dig roots. At the end of the time they traded their excess bags of roots with wives of fishermen for bags of dried salmon.

During the normal root digging season those who were forced to stay at the winter camps on the river for any reason gathered what roots could be found there, but they were very scarce on the north side of the river, and the bitterroot was especially acrid.

A list of the principal roots follows:

137 222 251 252 262

1. Camas, *Quamasia* sp., (sx̣wa'l i'tx̣wa, "meadow camas"). When the black outer skin of this root was removed the inner bulb appeared glossy white. It was an inch to an inch and a half in diameter, egg shaped, the largest and most desirable species of camas. Prepared by pit roasting; seldom steamed because it was difficult to make the root tender by this method. For storage, the bulbs were pulverized in a mortar, either while raw or after roasting, and formed into small cakes or balls to be dried. Sometimes forms were used to shape large cakes (apa'ma), which were subsequently sliced and then dried. This species was black after roasting. It was gathered in late May or June.

2. Camas, *Quamasia* sp., (sx̣ulu'sa). This species resembled the preceding one in appearance, shape and size, but matured earlier (April and May), and was found in drier localities. When cooked it turned light brown, not black, in color. It is sometimes called white camas. For immediate use it was steamed rather than roasted. A cooking basket was filled half full of water and hot rocks added to boil the water. Then small sticks were placed criss-cross in the basket above the surface of the water to hold the roots. After the roots had been added the basket was covered with a flat rock or piece of cedar plank to keep the steam from escaping.

   The upper part of this species was called sti'ixa'lps. Sometimes this root was eaten raw. For storage it was prepared in the same manner as i'tx̣wa (1).

3. Camas, *Quamasia* sp., (sunwəntu'nlak^{u}). This was a species considerably smaller in size and deeper growing than the previous ones, which grew principally on the banks of the Columbia. It was eaten raw or cooked in underground pits, but seldom steamed. It was gathered in April and May.

4. Camas (?), (tu'xwa). This was a root somewhat different in shape from the previous ones—more elongated and irregular in shape. The average length was perhaps two inches. It was dug in April and May and cooked in pits or eaten raw.

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5. Camas (?), (sa'ʒukᵘ). This is doubtfully a camas, but was so termed by my informant. It was a root of the shape of i'tʒwa, but about half the size; gathered in June, and dried, or cooked in the earth oven with pine moss. 137 222

6. Bitterroot, *Lewisia rediviva*, (spi'tləm). The bitterroot is a farinaceous root two to four inches long, growing in clusters of two to four per plant. The flesh is white, the skin pink. Bitterroot was mixed with service berries in equal parts, grease or fat added, and boiled, producing a congealed mass. The berries served to neutralize somewhat the characteristic bitterness which gave the roots their name. They were dried in great quantities. 251 252 262

7. Wild Onion, *Allium* sp., (qwɹla'ui). This bulbous, sheathed root was found only on the banks of the Columbia river. It was cooked by the pit roasting method.

8. Wild Carrot, *Daucus carota* (?), (sqlu'qum). The carrot was cooked for immediate consumption by steaming or boiling, or dried and stored for use during the winter.

9. Common Sunflower, *Helianthus annus* L., (wuγwaγkà'lpᵘ, "frog plant"). The sunflower root (p̓ili·'wa) was gathered, dried and stored for winter use.

The following roots are listed by the native terms, since they are unidentified botanically:

10. skukwi'nəm. This plant produced small, tuberous roots several in number. The flesh was white. They were numerous in April and May. They were boiled, eaten raw, or dried and stored.

11. masa·'wi. This was an apiaceous herb with a spindle-like root; gathered not in the spring, but in October and November. It was quite extensively used, being roasted in the underground ovens.

12. puli'wa. This was a tuberous root with pink flesh, heavy skin and sweet flavor. Gathering time was throughout the spring; the place, hillsides near the river. It was necessary to roast the root before the skin could be removed.

13. smɹtsunà'luqᵘ. This species resembled the preceding one in nature and appearance except that the skin was thinner, like that of the potato, and the flavor bitter. It was gathered and cooked similarly to puli'wa (12).

14. q̓waq̓wa'xᵘ, "sour, sour plant." The root of this plant possessed a white flesh and yellow skin; it was about three inches long and a half inch in diameter when mature. It was found in the spring along the banks of the Columbia, and eaten raw or roasted in pit ovens.

15. siya'iukən. This was a multiple root, white in color, each about five inches long. It could be gathered from spring until fall in damp places.

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16. tsaia'pa. This root, gathered in the mountains, was long (four to six inches) and slender. The plant, which grew about two feet high, was large leafed and produced red berries. The roots were cooked in pit ovens with pine moss.

17. a'yu'. After roasting in a pit oven, this root was pulverized, moistened with water and formed into cakes or balls which were then dried and stored.

FRUITS

Throughout the summer fishing season women made short one day trips along the banks of the river and nearby streams for the purpose of gathering berries. Such trips were made at times when salmon drying or other tasks were not pressing. Sometimes women relieved each other of the duties at camp for a few days to provide opportunities for berry picking. Women unencumbered by household duties often made longer journeys, lasting a week or ten days. Berry baskets and shelter mats were the only equipment carried on these trips. More extended journeys were made between the summer and fall fishing seasons. At this time the high mountains were visited and large quantities of berries obtained. The root, masa·'wi, was dug at the same time. Occasionally the berries in the high altitudes were killed by late frosts. During such years it was necessary to depend upon the bushes on the banks of the Columbia river and the smaller streams for the fruit supply.

Service berries were the most abundant and perhaps the most important fruit. The chokecherry ran a close second. Huckleberries, though important, were used far less extensively than at present.

Picking baskets for berries were similar to those used for roots. They were carried at the belt, on either side. Certain berries were removed from the bushes with combs.

Following is a list of the commonly used fruits:

18. Flowering Service Berry, *Amelanchier florida* Lindl., (sɬake'lpˢ). The berries (sɬukasa'laq) of this plant ripened in mid-July. They were eaten raw or cooked with salmon. For storage the berries were dried whole, or mashed and formed into cakes to be dried.

19. Flowering Service Berry, *Amelanchier florida* Lindl., (sii'lpˢ). The berries (sii'a') of this variety were sweeter than the preceding ones, and lighter in color. They were used fresh, or sun dried on tule mats and stored.

20. Chokecherry, *Prunus virginiana* L., var. *melanocarpa* (A. Nels.) Sarg., (ɣloɣlowi'lpˢ, "hole-in-bush"). This tree was found throughout Sanpoil territory north of the Columbia river. The fruit (ɣloɣla'uɣ) ripened in August. Large quantities were gathered both for immediate use and for drying. A pemmican was made by mashing the unseeded berries in a mortar, then mixing them with pulverized dried salmon. The mixture was formed into cakes, dried and stored.

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21. Huckleberry, *Vaccinium* sp., (stɑxa'lqᵘ, "sweet berry"). This included the red huckleberries and some of the blue or black species (blueberries). All ripened in July. The huckleberry was principally valuable as a fruit for immediate use, but some were dried in the sun. 137 222 251

22. Huckleberry or Blueberry. *Vaccinium* sp., (sɑsá'p̓t'). This species was differentiated from the preceding one in size, the berries being smaller. It was used similarly. 252 262

23. Blue Elderberry, *Sambucus coerulea* Raf., (tsukwi'kᵘ, "between sweet and sour"). Elderberries ripened in September. They were found in the hills and mountains. Eaten fresh.

24. Scarlet Strawberry, *Fragaria virginiana* Duch., var. *platypetala* Hall, (t̓əqe'm-t̓əqem). The strawberry was gathered in the mountain meadows in July for immediate use.

25. Oregon Grape or Western Holly, *Berberis aquifolium* Pursh, (sɑdɣsi'lpᵘ, "sour plant"). The berries of the Oregon grape were eaten fresh during the fall when they were ripe.

26. Thimbleberry, *Rubus parviflorus* Nutt., (pulpulɑkəni'lmɪlxᵘ, "wide leaved plant"; pá'lpulɑkən, "wide leaved plant berry"). Thimbleberries were ripe throughout July and August; they grew in the mountains. Used while fresh.

27. Wild Blackberry, *Rubus* sp., (mɪtca'kᵘ). The blackberry was found in rocky regions south of the Columbia river, where it ripened in July. The berries were eaten raw, or dried.

28. Raspberry, *Rubus* sp., (la·'lɑ'). This species was used only in the raw state. It grew in relatively damp regions; the berries matured in June and July.

29. Kinnikinnick, *Arctostaphylos uva-ursi* Spreng., (skuli's, "red berry"). The small red berries of the kinnikinnick were gathered in the fall or spring and dried, to be later used in soups.

30. Creek Dogwood, *Cornus pubescens* Nutt., (stɪkətcuxwi'lpᵘ, the tree; sti'ktcᵘ, the berry). This small, white, soft centered berry was eaten fresh during August, at which time it ripened.

31. Wild Gooseberry, *Ribes irriguum* Dougl., (səɣasɪkelmɪ'lxᵘ, "good bush"; səɣa'slukᵘ, "good berries"). These berries were used fresh in large quantities in August. They could not be successfully dried.

32. Rock Currant, *Ribes cereum* Dougl., (yɛɣkɪi'lpᵘ, "round bush"). Raw currants were eaten from the bushes which grew along the Columbia. The berries from bushes growing in the hills were not eaten; it was thought that they would cause headache, nose bleeding and sore eyes. However, Burke stated that he had often eaten them without experiencing any ill effects.

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33. Currant, *Ribes* sp., (sɣu·'sɜm, "foam berry"). This red currant grew in the mountains and was picked in July. It was used fresh or dried. In either case it was used in conjunction with service berries, which added sweetness. The two berries were mixed with water and whipped to a froth. 137 222 251

34. Currant, *Ribes* sp., (ənti'tumulps). This species was found near streams; it ripened in June. Eaten raw. 252 262

35. Currant, *Ribes* sp., (ia'takɪn). If this currant were found on the north side of the river the berries were not eaten alone, lest illness result. If mixed with other food, however, it was harmless, or if found south of the Columbia it was eaten raw without ill results. This was a red currant ripening in July.

36. Columbia Hawthorn, *Crataegus columbiana* Howell, (stɜmo'q'). The berries or apples of this hawthorn were not much used. They could not be stored for they invariably spoiled. When used fresh they were eaten whole or mashed in a mortar. They were gathered in August.

37. Hawthorn, *Crataegus brevispina* (Dougl.) Heller, (sxwa'ni'k). The berries of this species were sometimes boiled, then dried and stored. Even thus treated they kept without molding only for short periods. They were also used raw. They could be gathered throughout the fall.

STEMS

A few stems, or parts of stems, of widely divergent types, were eaten.

38. Prickly Pear, *Opuntia polyacantha* Haw., (sxwi'i'nȧ, "mice food"). This cactus was found widely spread over Sanpoil territory. A quantity of the pears were gathered, placed in a shallow depression dug in the ground, and a fire built over them to burn off the spines. As soon as this had been accomplished they were removed and pit roasted.

39. Common Sunflower, *Helianthus annus* L., (wuɣwaɣkȧ' pᵘ, "frog plant"). The stems of the young sunflower were gathered when they first appeared in the spring and eaten raw.

40. Sweet Coltsfoot, *Pedasites speciosa*, (ɣoɣti'lpᵘ, "cut off-plant"). The succulent petioles of this plant were eaten raw after removing the integumental fibers.

41. Bull Pine, *Pinus poderosa* Dougl., (sua'tkulpᵘ). The cambium layer of this pine, which was eaten raw, formed an important food. The bark was removed in sections about eighteen inches long with the aid of a wedge made of wood. Sap scrapers were made from the rib of the deer by cutting it to an appropriate length (ten or twelve inches), sharpening the edges and rounding the working end. Sometimes the handle end was smoothed on the edges.

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42. Chokecherry. *Prunus virginiana* L., var. *melanocarpa* (A. Nels.) Sarg., (ʒlo-ʒlowi'lpᵘ, "hole-in-bush"). A decoction made from the branches of the chokecherry was drunk as a beverage, as well as a medicine.[2] The bark is said to have supplied the flavor. 137 222 251 252 262

43. suwi'a' (unidentified). This was a small bushy plant. The portions of the stems just above the ground were eaten raw in the spring, when they were tender.

NUTS, SEEDS, LICHEN, ETC.

44. Pine. *Pinus ponderosa* Dougl., (sua'tkulpᵘ). Pine nuts (sqa'uqu) were gathered in the fall and eaten without further preparation. They were not stored for winter because too much time would have been consumed in accumulating any considerable quantity.

45. Hazel. *Corylus californica* (A. DC.) Rose, (q̇e'puxwa'), the hazel nut. Hazel nuts were gathered in fairly large quantities, principally for storage. They were taken from the bushes and from the nests of squirrels. The nuts were stored without removing the shells. The meat of the nut was sometimes pulverized before being used, but more often was eaten whole.

46. Common Sunflower. *Helianthus annus* L., (wuγwaγkä'lpᵘ, "frog plant"). Sunflower seeds (mi'k'tu) were gathered in the fall for immediate use and for winter storage. Preparation consisted in parching the seeds on a shallow rock which had been heated in the fire. The seeds were stirred about on the parching stone until brown. Before being eaten or stored they were pulverized in a mortar. Storage was in salmon skins.

47. Pine Lichen. (sqwal'i'p). This lichen (sometimes called pine moss) was to be found in great quantities hanging from the limbs of pines. It formed an important food product which could be obtained at any time of the year. The lichen was cleaned by hand of extraneous matter but was not washed or soaked. After cleaning it was placed in the roasting pit in alternate layers with wild onion and camas, or with the onion alone. After two or three days' cooking a dark colored, gelatinous mass was produced. This was cut into slices for immediate use, or for drying and storage. The dried product was prepared for consumption by boiling which restored it to very much its state before drying.

This food was one of the best liked of all vegetable preparations. The lichen is said to have sweetened the concoction.

48. Mushroom. Various edible mushrooms were eaten without cooking, but after peeling off the outer skin.

49. Wooly Field Mint. *Mentha arvensis* L., var. *lanata* Piper, (to'a·ti"wa, "rattler plant"). The leaves and stems of this mint were boiled for a few minutes to make a beverage. The liquid was strained before drinking. [272]

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[2] For medicinal use see page 221.

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50. Coyote Mint, *Monardella odoratissima* Benth., (sp'kanu'sastəm, "spear wiping plant"). This mint was used in preparing a beverage, hot or cold, in the same manner as the preceding one. 137 [272] 222

51. Western Larch, *Larix occidentalis* Nutt. The gum which collected on the stump of a burned or fallen larch was eaten. 251 252

52. Yellow or Bull Pine, Larch and Fir. The gum from these trees was chewed. 262

Vegetable foods were stored in regular storage houses such as were used for salmon and meats.[3] But in addition the tightly closed bark containers were sometimes deposited in thickets of sagebrush. They were anchored there with flat rocks. Protected spots at the bases of cliffs were used at other times. The cache at such a place was concealed with sagebrush. About one week's supply of food was removed from storage at a time.

[3]See page 76

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It was next twisted back on itself for half its length, carried around the heel, and fastened to the cross cord on the opposite side. It was then similarly twisted back and the end attached to the toe strap. 481

This shoe averaged three feet or more in length, twelve inches in width at the front, much less at the back.

The second type of snowshoe was ovoid in shape (Figure 20, e). It was called nɪɣɪɣo'pa from iɪɣ, "round." This was a less satisfactory shoe than the preceding one, but it was more easily made and required less rawhide. In stringing and harness it was similar to the long one.

The sliding snowshoe, i'tctu (Figure 20, a, b, c), was the most complex of all forms. The frame was made of syringa, *Philadelphus Lewisii* Pursh., (wuɣwa'-xailpᵃ). This shoe was adapted to use as an ordinary snowshoe or for sliding where the snow was crusted. In the latter case a pole was sometimes used as an aid. This pole, called t'əki'kstən, was of fir, even in diameter and about six feet long. The shoe was made in two varieties. The significant difference was in the form of the frame. One was continuous, an elongated oval (Figure 20, a); the other was closed at the back only and had almost parallel sides turned up at the front (Figure 20, c). Each was made of two pieces of green wood, spliced together either at both ends or (in the second variant) at the back only. These pieces were not left in the round, but worked to a rectangular cross-section, about one-half inch by one and one-half inches. They were arranged to rest on the narrow edges. At the front, which was raised about six inches, the thickness was lessened considerably. During the shaping process the frame was occasionally held over the fire to increase its flexibility. The splices were bound with rawhide. Temporary cords were used here, too, to hold the frame in shape until it dried. [137]

When dry three cross pieces of wood were added, one near the front, one somewhat forward from the middle and one near the back. These were shouldered and fitted into holes bored in the frame at the sides. They were rectangular in section, similar in size to the frame. The forward piece rested on its edge, the other two on their sides. The stringing was of two strand rawhide as in the common showshoe. The forward and back sections were longitudinally strutted. The two central portions were strung in a complex pattern consisting of lengthwise, transverse and diagonal cording. The diagonal cords were fastened to holes bored in the frame and to the center string. Other cords were looped around the frame at the place of attachment but the frame was notched at the bottom so that the cords would not project beyond the running surface.

The harness was fastened to the middle cross piece of wood. It consisted of two cords, one looped around the toe and the other wrapped around the ankle and fastened to the toe loop at the center.

The overall length of this snowshoe varied between two and three feet. The widths at the three wooden cross pieces, from front to back, were respectively five, nine, and four inches. This shoe was used most extensively while hunting.

Toboggans were made from raw deer or bear hide. The hide was held in front of the feet with the hands. Sometimes pine branches were used on crusted snow.

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1. Common Sagebrush, *Artemisia tridentata* Nutt., (qwinqwinəməni'lpˢ, "blue brush"). This plant is one of those most commonly found in the territory of the Sanpoil, and perhaps the one most extensively used for medicinal purposes. A tea was brewed from the pulverized leaves and stems and used for the treatment of severe cases of the common cold and la grippe.

   A stronger tea, used in treating indigestion, biliousness and tuberculosis, was made from the tips only of the stems and a few seed pods. Sweating was customary preceding and following the drinking of the potion. Furthermore, these infusions acted as laxatives.[4]

2. Common Sagewort, *Artemisia vulgaris* L., var. *ludoviciana* (Nutt.) Jeps., (nəqənɔqatí'lpˢ, "ill-smelling bush"). A few leaves were placed in the nostrils and permitted to remain there for about an hour to relieve a cold in the head or a headache.

   Pulverized leaves of this sagewort were sprinkled on sores to hasten their healing.

3. Dragon Sagewort, *Artemisia Dracunculus* L., (tsitsiqxi'lpˢ, "squeaking bush"). Roots of this sage were steeped in cold water to obtain a brew which was used in the treatment of colds.[5]

4. Purple Sage, *Ramona incana* (Benth.) Dougl., (snɪk'nɪkɪ'taqi·'n). This was another herb popularly used in the treatment of the common cold, or for any illness of a general nature. The potion was made by boiling or steeping the leaves in water.

5. Antelope Brush, *Purshia tridentata* DC., (tsqua'sqələstən, "grease wood"). The berries of this plant were crushed and mixed with water to form a concoction for the treatment of constipation or hemorrhage.

6. Rabbit Brush, *Chrysothamnus nauseosus* (Pall.) Britt., var. *speciosus* (Nutt.) Hall, (papa'lamɪpˢ, "buckskin brush"[6]). A smudge produced by burning this brush was considered effective in curing horses of distemper. A few pieces of brush were placed in a container, lighted, and held below the horse's nostrils.

   Also, the branches and leaves were pulverized and mixed with water to form a paste-like substance which was rubbed on horses to protect them from horseflies and gnats.

7. Buckbrush, *Ceanothus sanguineus* Pursh, (wɛ·'ɣanlpˢ, koli'tkilpˢ). This brush was utilized in the preparation of a powder for use on sores or wounds. After removing the bark the sap wood was scraped away, then dried and pulverized. Grease or oil of any kind was rubbed on the afflicted part and the powder sprinkled on top of it.

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[4] For non-medicinal use of this plant, see page 36.
[5] For a non-medicinal use of this plant, see page 76.
[6] So termed because of its use in smoking buckskin.

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8. Sulphur Flower, *Eriogonum compositum* Dougl., (tsak'tsak'wa'ɬak, "red-red wood"). The root of this plant was boiled with water and the liquor obtained was swallowed to relieve diarrhea. 137 278 757

9. Sulphur Flower, *Eriogonum heracleoides* Nutt., (sia'itskən, "solid head"). Used as the preceding species, No. 8.

10. Coyote Mint, *Monardella adoratissima* Benth., (ap'kanu'sastən, "spear-rubbing plant").[9] The stems and leaves of this mint were boiled and the concoction used in the treatment of severe cases of the common cold in either children or adults.[10]

11. Wooly Field Mint, *Mentha arvensis* L., var. *lanata* Piper, (to'a·ti'əwa, "rattler plant"). A medicinal liquid employed in treating the colds of infants was made by boiling this mint with water.[11]

12. Wild Mint, *Mentha canadensis* L., (xaxa'ilp[e]). This mint, like the two preceding species, was used in concocting a medicine for colds. In addition, it was considered efficacious in the treatment of other illnesses of a general nature. If made for adults, the water in which the leaves were immersed was boiled; if for children, the leaves were merely steeped.

13. Western Yarrow, *Achillea Millefolium* L., var. *lanulosa* (Nutt.) Piper, (q̓ots-q̓otso'ia'xo'ps, "chipmunk grass"). This is still another plant from which a liquor for the treatment of colds was made. The roots were boiled until the water became very dark. The patient swallowed the draft before it cooled.

It was taken only in the evening, at bedtime.

The upper portions of the yarrow were used in quite a different manner. [847] A strong potion, made by boiling water in which the leaves and stems had been immersed, was used to cause abortion.

14. Skunk Currant, *Ribes bracteosum* Dougl.[12] An infusion made from the stems of this plant and water, was prepared for a child when afflicted with a cold.

15. Western Scouring Rush, *Equisetum hyemale* L., (itsi'stən). This was not a medicine, but was used as a drinking tube through which medicine was taken by patients unable to drink directly from a container, and for giving medicine to infants. [415]

16. Gum plant, *Grindelia nana* Nutt., (nti'tai'xu's, "floats on water"). The roots of this plant were boiled with water and the concoction was used in the treatment of tubercolosis.

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[9]See page 135.

[10]Non-medicinal uses indicated on pages 105, 135.

[11]For non-medicinal use, see page 104.

[12]William Burke, who furnished the information concerning this specimen, was uncertain as to the Sanpoil name. He identified it tentatively by the same name as that given by Bob Covington for wild mint (specimen no. 12); but his suggestion was doubtless incorrect.

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17. Sticky Geranium, *Geranium viscosissimum* F. & M., (ta'qwa'). The geranium leaves were crushed and applied to sores.

A liquor obtained by boiling water in which geranium roots had been placed was used for washing sore eyes.

18. Nettle, *Urtica* sp., (st'sat'si'xant, "burning plant"). The nettle was used as a counter-irritant. In cases of inflammatory rheumatism or other swelling a sprig was brushed lightly against the affected part.

19. Arrow-leaved Balsamroot, *Balsamorhiza sagittata* (Pursh) Nutt., (smoqwakʷi'lpˢ, "humped-up plant," pi'i'q).[13] A small piece of the root was dried out and toasted near the fire, then pulverized by wrapping it in buckskin and pounding. The powder thus obtained was sprinkled on sores and boils.

Sometimes a piece of the root was flattened by hammering, heated and then bound to a body area which was bruised or painful.

The root was prepared for use as a poultice in still another manner. Small pieces were cut from the bulbs and macerated in a small quantity of boiling water. The paste so formed was rubbed on the afflicted part.

A hair tonic, made from the root by shredding the inner portion and mixing it with water to form an infusion, was rubbed into the hair and scalp to help the growth of the hair.

20. Dogbane, *Apocynum androsaemifolium* L., (þətspətsaʷ'kul, "false hemp") The roots were boiled with water and the concoction was drunk as a contraceptive. It was customary to take the potion about once each week.

21. Western Holly, or Shining-leaved Oregon Grape, *Berberis aquifolium* Pursh, (stcualsi'lpˢ, "sour-plant"). The tips of the stems of the holly were boiled and the liquor taken to relieve a disturbed stomach or to stop vomiting.

Tuberculosis was treated with a medicine made by boiling the roots in water.

The roots were used also in the preparation of an eye wash. The roots were washed, the outer covering removed and the inner substance shredded. An infusion was made by soaking these shredded parts in cold water until the liquid became yellow. The fluid was dashed into the eyes with the hands, or the face was immersed in it.[14]

22. Smooth Sumach, *Rhus glabra* L. (tl'tl'ti'lpˢ, "tearing brush"). Sumach leaves were chewed and permitted to remain in the mouth for some time to aid the healing of sore gums.

The leaves were also used for sore lips. In this case they were mashed and rubbed on the lips.

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[13]The first term was the one applied to the plant by William Burke; the second was given by Bob Covington. There is a slight possibility that the two terms designate distinct species, in which case Burke's nomenclature is more apt to be correct for *sagittata* than Covington's.

[14]For non-medicinal uses of holly, see pages 37, 102.

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23. Cow Parsnip, *Heracleum lanatum* Michx.[15] (ʒoʒti'lpᵃ, "cut-off bush"). The roots of this herb were pounded and a small amount of water added, to form a paste. This preparation was used as a poultice over painful parts, sore eyes, etc. A strip of buckskin was usually used to bind the poultice in place; it was left over night. Mixed with water it was used as a hair wash to eliminate dandruff.

24. Devil's Club, *Echinopanax horridum*, (ʒoʒo'i'lpᵃ). The stickers and outer covering of the stalk were scraped away, then the inner pith was split into fine pieces and immersed in water to make an infusion, yellow in color, which was used for colds.

25. Snowberry, *Symphoricarpos albus* (L.) Blake, (stəmtəmani'i'lpᵃ, "grave-bush"). The fluid obtained by boiling water in which leaves from the snowberry had been placed was used to relieve cases of retention of the urine. It was used alike for men and animals.

[515]

Crushed berries were rubbed in the arm pits as an anti-perspirant.

A concoction made by mashing the berries and mixing them with water was used to bathe sore eyes.

The roots of the snowberry were also used. They were boiled and the liquor used for illness of an indefinite character.

26. Kinnikinnick, *Arctostaphylos uva-ursi* Spreng. An infusion made from the entire plant was used as a hair wash for the elimination of dandruff and scalp diseases. It was also used to wash the hair of young girls to insure a luxuriant growth.

[302]

This liquid was further used to wash skin sores. Usually after washing the sores were sprinkled with a powder made by drying and pulverizing the green leaves of the kinnikinnick.[16]

27. Western Clematis, *Clematis lingusticifolia* Nutt., (q̇ətsəsuni'na', "tangle owl"). A lather, made by rubbing clematis leaves together with water, was applied to sores or boils on either men or animals. After the application, the lather was washed off and one of the healing powders sprinkled on.

28. Scouler Willow, *Salix Scouleriana* Barratt, (pə'ʒpoʒilpᵃ, "spray bush"). Roots of this species of willow were boiled with water and the liquid was used to counteract diarrhea.[17]

29. River Alder, *Alnus tenuifolia* Nutt., (q̇iq̇i'təni'lpᵃ, "dry dry tree"). The bark of this tree was boiled to obtain a liquor for washing sores. The sap wood was used for making a healing powder for use on sores. The bark was removed, the sap wood scraped away, then dried and pulverized.

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[15]Identification probable, but not certain.
[16]For non-medicinal uses, see pages 102, 167.
[17]For non-medicinal uses, see pages 36, 63.

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30. Chokecherry, *Prunus virginiana* L. var. *melanocarpa* (A. Nels.) Sarg., (xloxloxwi'lpᵘ, "hole-in-bush"). The bark of the chokecherry was used in the production of a medicine for the treatment of diarrhea. The bark was immersed in water and boiled and the liquid used.[18] 137 278 757

31. Rocky Mountain Juniper, *Juniperus scopulorum* Sarg., (pu'nilpᵘ). The leaves, stems and berries were pounded together, then macerated in boiling water. When the concoction became lukewarm it was rubbed on the body to heal sores.

One or two of the bitter, dried berries were eaten for general illnesses. The berries were eaten by patients suffering from tuberculosis, also; or a liquor was made by boiling the berries, and taken.

The leaves were macerated in boiling water and the potion swallowed for any illness of an indeterminate nature.

32. Chittam, *Rhamnus purshiana* DC., (staptapsa'lu). The chittam bark was boiled and the liquor used as a cathartic.

33. Ocean Spray, *Holodiscus discolor* (Pursh) Maxim, (matsmatsi'lpᵘ). The leaves were dried while green, then pulverized, and the powder used for healing sores.

34. Chaenactis, *Chaenactis Douglasii* (Hook.) H. & A., (tiptipalx'u'ps, "spider grass"). The roots of this plant were used in the preparation of a preventative medicine. They were boiled and some of the liquid was swallowed by the surviving members of a family after the death of one, "to avoid contracting consumption."[19] [757]

35. Balsam Root, *Osmorhiza* sp., (ai'u').[20] The root was first roasted in ashes, then split open and the inner portion removed. This, in turn, was kneaded and then applied to sores, wounds, boils or bruises.

The tips of the roots were shredded and macerated in cold water. The concoction was drunk instead of water when a person was generally ill.

A medicine for washing the backs of horses when sore, or the body when scabby, was made by crushing the green roots and macerating them in water.

36. Pine, *Pinus* sp., (sua'tkulpᵘ). Pine pitch was applied to boils to bring them to a head.

37. An unidentified composite, (ntoqtoqui'nqᵘ). The leaves were immersed in water which was boiled until it became very dark in color. While still warm it was swallowed to overcome the common cold, or to increase the tone of the system. This medicine was often used for children.

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[18] For non-medicinal uses, see page 101, 104.

[19] These were the words of William Burke. I do not trust his explanation of the motivation here, although he insisted that he was certain of his information. I rather feel that he has substituted, although not consciously, the concrete concept of modern medicine (tubercular infection) for the more abstract "intrusion of evil spirits," and that the potion was used actually as a purgative. Cf. page 153.

[20] Identification not certain.

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137/278 38. An umbelliferous species, (ȧlȧpi'spas). Illnesses of an indeterminate or general nature were treated with a potion made by boiling roots of this herb.

757 39. tcuqtcuqti'lpᵘ (unidentified). The roots of this plant were boiled with water for about an hour, and the liquor used for the treatment of syphilis. The potion was taken in the evening and early morning. Three doses were usually considered sufficient for a cure.

40. məsməsaiu'ps (unidentified). The potion made by boiling the roots of this herb was used for a variety of ailments. It was considered valuable for the treatment of tuberculosis, for arresting a hemorrhage and for curing gonorrhea. Moreover, it was used by men to counteract the ill effects of inadvertently associating with a menstruating woman.[21]

[841]

41. tcɩstcu'sɩamilxᵘ, "rattle bush" (unidentified). The leaves of this plant were crushed and applied directly to sores; or they were immersed in a small amount of water and boiled, then applied.

42. qulqulɩmi'lpᵘ (unidentified). A strong medicine used for indeterminate illnesses was made by boiling the leaves and small branches of this bush for about a half hour.

43. ɣa'sxas (unidentified). This is a small plant which was found in the mountains. Its tuberous root was dried, and portions of it chewed and swallowed to aid recovery from a cold.

[303] Due to the fragrant odor given off by the root, it was also used as a perfume. The root was rubbed on the face and clothing before attending a dance.

A small bit was sometimes pulverized and added to tobacco to add to the flavor.

MEASUREMENTS AND DIRECTIONS

805 The Sanpoil calendar contained twelve months, each of which began with the new moon (soɖe'imən t̄i'taxᵘ), "the moon stands up." The solstices were observed and the month count usually began with the month in which the winter solstice occurred. This was not a formal "beginning of the year," however. Such a concept did not exist. Following are the month names and translations:

kumi'ƙutən.....	"time that it snows"
kt̄sa't̄sa'ɩtɑ'n.....	"time that it gets cold"
spa'kət̄.....	"time that it is white"
skənɩ'ɣumən.....	"time that buttercups bloom"
kəpatctɩtɑ'n	"time that the leaves come out"
kti·'xumən.....	"time of beginning of everything (activities of plant world)"
kəmi'kto'tən.....	"time for gathering sunflower seed"

[21] Cf. page 134.

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LIST OF PLANT NAMES

Berries

1. Service berries, sī´a Possibly Teit's[1] sī´a, Amelanchier alnifolia (Nutt)
2. Red foam berries, sxō´sem sx̣ō´sEm, Shepherdia canadensis (Nutt)
3. Black thornberries, cxwanī´q sx̣wanī´k, Crataegus rivalaris (Nutt)
4. Red thornberries, x̣ax̣'x̣a´ī'ī
5. Huckleberries, stEka´lqx stêx̣ê´llk, Vaccinium membranaceum (Dougl)
6. Willowberries, stī´q·tsu sti´ksx̣[u], Cornus pubescens (Nutt)
7. Blueberries
8. Raspberries, ɬaɬa x̣lā´la, Rubus sp.

[1] [For foot note, see p. 29 (A), category 116. -- Analyst]

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9.	Strawberries, tq!ēmtqEm	tEkei´mkem, Fragaria californica (C and S)
10.	Thimbleberries, palpū´lEqxn	
11.	Bearberries, skūlī´s	
12.	Red berry, tatka; grows high in mountains; not important	

Roots

13.	Bitterroot, spī´tlum Possibly Teit's	spī´tlam, Lewisia rediviva (Pursh)
14.	Small onion, waīqwīū´p^{ts}	yekiyu´kEps, Calochortus macrocarpus (Dougl)
15.	Camas: Black round camas traded from Idaho, ī´t'xwa; White round camas dug at Waterville, tsaxūlō´sa; White camas with long bulb, ka´ūōs	ē´txwa or ī´txwa, Camassia esculenta
16.	Big onion	
17.	"Potato," a bitter bulb, stākcī´n	stoxtci´n, Lilium columbianum
18.	"Yellow Bells," sEma´rata	
19.	"Carrots," sklō´kūm	
20.	A root, pcaī´k	cxei´kEn, Sium lineare
21.	A bulb, cūī´x^{ū}	s-hwe´^{u}x^{u}, Erythronium grandiflorum
22.	A root "white camas ?), tcōkōlō´sa, (perhaps comes from Waterville, above)	
23.	Tiger lily bulb, stExtsī´n	stoxtci´n, Lilium columbianum
24.	"Parsnips," mīcō´wī	
25.	A "parsley," ^{t}sīms'ne´lqx	smitsenā´lk^{u}, Peucedanum macrocarpum (Nutt)
26.	"Potato," skwEnqūīnEm	skwenkwī´nEm, Claytonia sessilifolia
27.	"Radish," xEnxEx	xa´nExan, Cycopus uniflorus

Other Plant Foods

28.	Pine cambium, tsī´xwī Possibly Teit's	tse´xwe or tsū´xe, Pinus ponderosa
29.	Sunflower seeds, mī´ktū	mī´kto, Balsamorrhiza sagittata
30.	Choke cherries, tlōxtla´x^{ū}	xlo´x.ɫox, Prunus demissa (Walpers)
31.	Black moss, skwalī´p	skolē´p, Alectoria jubata
32.	Pine nutlets, sq!aū´q!ū	sqa´uku, Pinus ponderosa
33.	Fungus, kɫa´panter	
34.	Fungus, pī´tlxk'n	
35.	Fir tree, tsqīlxp	
36.	Early bud, cwa´ya (See No. 21, its root, which is eaten)	s-hwe´^{u}x^{u}, Erythronium grandiflorum

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18 See Individual Life Cycle.
19 Ironwood, used by tribes on the Columbia, does not grow in this region. >*
20 Modern examples made for casual hunting of small game are quite short. A specimen in the Washington State Museum (no. 2-271) is thirty-two inches in length. >*

*[For context of these footnotes, see p. 53 (A), category 116. -- Analyst]

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PIPES AND TOBACCO

Various types of pipe were in use. 276
These include the elbow pipe, the tubular pipe, a square block pipe, and variants of the tomahawk pipe (Figures 34 and 35). Women's pipes were like men's but smaller; they were made for them by the men. No woman could smoke a man's pipe. [562]

Pipes were made of soapstone, clay, and 276
a red stone, probably red catlinite. Red cat- 316
linite pipes were traded ready-made from the 439
Shuswap, since the Okanagon did not know how to work this stone. A red stone was obtained on the Methow River, a dark blue-green soapstone from the Wenatchi, and black soapstone from the Similkameen River. A light green, soft stone (soapstone ?), which was considered superior to other materials, was also gotten from the Similkameen River. To obtain it a man had to be let down the bluff by means of a rope to the water's edge, where he crawled back under the shelving rocks and took the stone from under water. The stone was immediately cut into pipes while still wet and soft. Stone for pipes was also traded from the Thompson for Indian hemp. Clay was also used when stone was lacking, according to Suszen, although he had never seen clay pipes, but Billie Joe denied this. The Methow used a blue translucent stone (soapstone ?).

To manufacture a pipe, the shape marked 276
on the stone was cut out with a flint or ob- 324
sidian knife. The stem and bowl were bored with a flint or obsidian drill. The bowl was smoothed and polished with horse tail (Equisetum). The short stems of stone pipes were sometimes lengthened by inserting a hollow willow stem. The tubular type (Figure 34, b) rarely needed such a stem. Pictures of birds [531]
and animals or straight lines were incised on the stone stem of the pipe with an obsidian flake and filled with red paint made of red clay (ochre ?) mixed with pine pitch and grease. Those who were too poor to own a pipe or who were on a hunting trip without one would make a hollow in the mud for a bowl and insert a wooden stem at one side. This makeshift had to be smoked in a prone position. Women's pipes were similar to men's but somewhat smaller. All pipes were [462]
formerly made by men, but are now made by women also. Pipes were never sold.

There was apparently a tribal pipe (i.e., 276
group or band pipe) in the custody of the 623
chief of the band. This pipe was passed around the council circle to the right, starting with the chief, before the discussion began, each man taking two or three puffs. The heads of winter houses were also said to have large pipes for formal gatherings like those of the chiefs.

Tobacco was not cultivated, not even by 314
weeding the wild plants, but was gathered [137]
along creeks and in moist places. This plant was said to be a yard tall. The leaves were 276
stripped off and spread on rocks to dry for about two days. The dry leaves were then

5: Teit E-5 (1904-09) 1930 Southeast Salish
Coeur d'Alene

304 531 by men, and was not common. Long lines were sometimes made following the ribs, and small figures of animals were also sometimes made on different parts of the body.

Face tattooing was fairly common among women long ago, but was rare among men. The figures were all geometric. Women used short single or double lines extending downward from the corners of the mouth, two or three vertical lines on the upper lip below the nostrils, a dot or a small circle on each cheek, and rarely a similar mark on the brow. Men used a line of dots along the top of the brow. From one to five radiating or sometimes vertical lines on the chin formed a fairly common tattoo; but my notes do not make it clear whether this mark was used by men or women, or by both. All tattoo marks had names, but now these are nearly all forgotten. Although the figures all had names, it is said that most of the geometric designs had no significance. It was just fashion to make the marks that way; and they were merely considered decorative in the same way as certain face paintings and other designs were used for decoration only, and followed certain customary forms or outlines. Most of the triangles in tattooing were called "arrow-heads"; the vertical lines on the chin were called "tail feathers"; and the radiating lines on the chin, "eagle's tail." Realistic designs were often connected with the person's dreams or guardian.[141] It seems that most tattooing was done by pricking with a sharp bone or a sharp pin or needle of hard wood. Powdered charcoal was rubbed into the wound. Some men preferred cutting the skin, especially for making lines. Powdered charcoal, red ochre, and white earth were rubbed into the wounds by men. After the Coeur d'Alêne began to go to the plains to hunt buffalo, tattooing gradually fell into disuse, as it was not fashionable among most tribes living to the east. A few women have continued the practice in a modified way until recently.

V. SUBSISTENCE

137 221 241 262 FOOD.—As among other inland tribes, the food of the Coeur d'Alêne consisted of the flesh of animals, birds, and fishes, and of vegetable products which were much depended on; but meat and fish were of chief importance. No agriculture was practiced. The principal vegetal foods used by the tribe are given below.

ROOTS

Latin name	Coeur d'Alêne name
1. *Camassia esculenta* Tendl.	*sxa''ulutxwa* (Thompson *ski'an* raw, *ĕtxwa* camas) (camas in the raw state), *e'txwa* (camas when cooked).
2. *Lewisia rediviva* Pursh.	*sp'it'ɛm.*

[141] See p. 192.

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3.	(Probably *Lomatium kaus* Wats. ? or (*Peucedanum cous* Watson).	*pī'wia.*
4.	Root of an unidentified plant said to have a yellow flower and a round and rather flat root.	*p'ax^{w}p'ax^{w}.*
5.	Root of an unidentified plant said to have a white flower and a small round root.	*tu'xwa.*
6.	*Allium* sp., possibly *geyeri*	*sistc.*
7.	*Allium* sp., probably *cernuum*	*qwxli'wlle* (Thompson *kolā'wa, kala'wa*).
8.	Root of an unidentified plant said to have a tall white flower and a small round root.	*sī'ā'qom.*
9.	Probably *Daucus pusillus*	*mē'smxn.*
10.	*Claytonia* sp	*sqwā'txm.*
11.	Root of an unidentified plant said to have a white flower and a small flat root.	*la'q'ămx^{w}.*
12.	Probably *Fritillaria pudica*	*tc'a'wxx* (Thompson *tcā'wxx*): *Lilium columbianum.*
13.	Probably *Sium lineare*	*mā'txmxts.*
14.	Root of an unidentified plant said to have a white flower and a large long root, and just one leaf which grows on top of the water.	*sqeigxts* (Thompson: *Opuntia a'qxqx'tx*).
15.	Probably *Cnicus undulatus* Gray	*martl'opa.*
16.	Root of an unidentified plant	*pitcelu'sa.*

My informants claimed that the roots of *Balsamorrhiza sagittata* and *Balsamorrhiza hookerii* were not eaten, although one or both of these were used by the Flathead. Also they said that the roots of *Lilium columbianum* (Hanson) were not eaten, although this root is much used as a food by the Thompson, Shuswap, Okanagon, and others. *Lewisia rediviva* did not grow in the Coeur d'Alêne country, but was plentiful in Spokan territory, where Coeur d'Alêne parties went to dig it.[142] The *pitcelūsa* grew only on the borders of the Nez Percé territory, and parties went there to gather it. Some of the unidentified species used by the Coeur d'Alêne may be the same as some of those used by the Nez Percé.

Berries

	Latin name.	Coeur d'Alêne name
1.	*Amelanchier* sp. (service berry or June berry).	*sla'q.*
2.	*Prunus demissa* Walpers (chokecherry or black wild cherry).	*la'xlxx*
3.	*Prunus* sp. (red wild cherry)	*i'xcile'pa.*
4.	*Sambucus* sp. (elderberry)	*stsā'qxq* (Thompson: *tsī'kuk*)
5.	*Crataegus* sp. (black hawberry)	*sxo''naic.*
6.	*Crataegus* sp. (red hawberry)	*kwāla.*
7.	*Cornus pubescens* Nutt. (red willow berry)	*stiltax^{w}.*
8.	*Rubus* sp. (raspberry)	*nxalā'tsē* (Thompson: currant *laā'sa, xlaā'sa*).

[142] b, pp. 203, 204.

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9. *Rubus* sp. (probably thimble berry) (or possibly salmonberry).	*pe'lpelqɛn.*
10. *Rubus leucodermis* Dougl. (blackberry or black raspberry).	*mētsu'q* (Thompson: *mē'ɬcuk, mē'ɬcuk*).
11. *Rubus* sp. (trailing or low blackberry or bramble).	*ti'ɬiɬɬiumc*[a] (Thompson: *ti'ɬɬi.ûm.*
12. *Ribes* sp. (red gooseberry)	*ni'i'i'tmēlps.*
13. *Ribes* sp. (black gooseberry)	*ya'ricɛn.*
14. *Ribes* sp. (wild currant)	*ɬē'rus* (Thompson: Oregon grape *teē'l.su*, Okanagon *.ɬeē'rus*)
15. *Shepherdia canadensis* Nutt. (soapberry or buffaloberry).	*sɛpo'sɛm* (Thompson: *sɛpē'sɛm, ahō.'sɛm*).
16. *Fragaria californica* C. and S. (strawberry).	*stse'qom* (Thompson: service berry *.stse'gum, .sta'ō'gom*).
17. *Vaccinium membranaceum* (huckleberry or whortleberry).	*stāc'* (*stk*).
18. *Vaccinium* sp. (white huckleberry)	(*sɛn*) *paqpaqa'qɛn.*
19. *Vaccinium* sp. (small blueberry)	*stā'qin.*
20. *Berberis* sp. (Oregon grape)	*sqwē'yu* (Thompson: "berry of mountain ash *.skā'u*, rosebery *s.kōkwē'u*).
21. *Arctostaphylus uva-ursi* (bearberry)	*i'ltc* (Thompson *ē'ik, ēi'sk*; raspberry *.sēilsku, .sei'lck*).
22. *Rosa* sp. (roseberry)	*tɛɛɛtsɛɛɛwɛɛwoiye'pē* .

The berries of *Prunus emarginata* were eaten only occasionally. *Shepherdia* (or soapberry), it is said, does not grow in the Coeur d'Alêne country, and, according to some, is not found east of the Colville country. It was procured in trade.

The following berries were not eaten:

Latin name	Coeur d'Alêne name
Sorbus sambricifolia E. and S. (mountain ash berry).	*we'ɛe'ēlp.*
Lonicera involucrata	*.se'mpaqɛn.*
Juniperus, two sp. (juniper berry).	
Symphoricarpus racemosus Mich. (snowberry).	*sē'ɛmsē'ɛmne"* (*tqɛn*) ("dead people's berry" or "dead head").
A blackberry growing in the high mountains, possibly the heath berry.	*tētɛpētlp* ("black plant") (Thompson: *stse'ptapt*, black; *sētētpēse* Ribes. sp.).

SEEDS, NUTS, AND OTHER VEGETAL FOODS

Latin name	Coeur d'Alêne name
Nuts of the hazel tree. Hazel did not grow in the Coeur d'Alêne country, and the nuts were procured from the Colville through the Spokan.[a]	*k'e'pucus* (Thompson: *.qapuc*).
Nutlets of the yellow pine (*Pinus ponderosa*)	*stastel'tes'* (Thompson: *.stelkk*).
Nutlets of the silver-barked pine (*Pinus albicaulis*).	*sowi'stic.*
Seeds of *Balsamorrhiza*, one or two sp., possibly also seeds of *Helianthus* sp.	*mi'ltcto* (Thompson: *mi'klō*).

[a] Any kind of nut.—N. Richard.

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Coeur d'Alene

Cambium layer of yellow pine (*Pinus ponderosa*). } *stsi'ʒwe* (Thompson: *stse'ʒwe*).
Cambium layer of black pine (*Pinus contorta* or *murrayana*). } *st.tsamoʒtse'n.rm.*
Cambium layer of the poplar (*Populus* sp.) was eaten occasionally.
Growing stalks of *Balsamorrhiza*..... *smo''kwacrm.*
Growing stalks of *Heracleum lanatum* Mich. (cow parsnip or wild rhubarb). } *ʒo'ʒlp.*
Growing stalks of *Peucedanum* sp. (wild celery). *pā'qai.*
The black tree moss, *Alectoria jubata* L. Much used long ago. } *sā'ic'stct.*

The *Opuntia* (*sʒu'wēnātc*) was known to many of the Coeur d'Alêne, but was not eaten. It did not grow in the Coeur d'Alêne country, but in the arid country to the southwest and in some parts of the plains region.

TOOLS AND METHODS OF HARVESTING.—The growing stalks of *Heracleum*, *Peucedanum*, and *Balsamorrhiza* were merely plucked, peeled, and eaten raw. Seeds of *Balsamorrhiza* were heated with hot stones and crushed. Berries were picked by hand into baskets of several kinds. Some varieties of berry, when very ripe, were gathered by bending the twigs or branches over the mouth of the basket and beating them with a short stick, thus making the berries fall. Small blueberries were sometimes collected by combing them into the basket.

Roots were dug with root diggers and gathered into baskets. When most kinds of baskets had gone out of use, woven bags were generally employed for gathering roots. Root diggers were of the same sizes and shapes as those in use among the Thompson Indians.[143] Some were round, the wood being used in its natural form. Many others were more or less square excepting near the point. The latter kind had a better grip in the ground. The curve of the digging stick varied. Those used in soft ground were wide and curved, while those used in hard ground were rounded and almost straight. The points were often hardened by charring. Root diggers were made of the wood of service trees (*Amelanchier*), haw trees (*Crataegus*), or syringa (*Philadelphus lewisi* Pursh). The handles were of elk antler. None were of sheep's horn, and only a few were made of goat's horn. Wooden handles were hardly ever used. No stone handles like those described by Spinden for the Nez Percé were used.[144] Long ago root diggers were occasionally made, both handle and blade, of a single piece of elk antler.

For gathering the cambium and sap of the black pine, sap scrapers were used. They were made from the shoulder blades of various

[143] *a*, fig. 212.
[144] *b*, p. 200, Pl. VII, 33.

7:Teit E-5 (1904-1909) 1930 NR19 Southeast Salish NR19
Kalispel
Spokan

Lower Kutenai on the north, Colville and Lake on the west, Spokan and Coeur d'Alêne on the south, and the Pend d'Oreilles on the east. 101

The Spokan.—The Spokan occupied that part of eastern Washington immediately south of the Kalispel and west of the Coeur d'Alêne. It seems that the bulk of the tribe was on the Spokane and Little Spokane Rivers. South they claimed the country to Cow Creek, and, according to some, along this creek almost or quite to Palouse River. North their country embraced the present Spokan Reservation, Loon Lake, Deer Park Lake, Peone Prairie, and all the northern feeders of the Spokane. Their western boundary seems to have been approximately a line running about due south from the mouth of Spokane River and passing through Ritzville. The Spokan hardly touched Columbia River at any point. They had for neighbors the Coeur d'Alêne on the east, the Kalispel and Colville on the north, the Sanpoil and Columbia on the west, and the Paloos on the south.[2] 131

PHYSICAL CHARACTERISTICS OF THE COUNTRY.—The country formerly inhabited by the Spokan is arid in the lower valleys, but at higher levels very much of it consists of rolling, grass-covered plateaus and prairies with comparatively little timber. Much of the northern part of the Pend d'Oreilles country and most of the Kalispel country are more or less heavily forested. A great deal of it is hilly or mountainous, but there are also many flat open parts and meadows with luxuriant grass. Altogether the territories of the Flathead group of tribes were exceedingly diversified in natural features, rich in food supplies, and had good climatic conditions. 133 137

DIVISIONS, BANDS, AND HEADQUARTERS. *The Flathead.*—It seems now impossible to get a full list of the bands of the Flathead tribe previous to their change of organization brought about by the introduction of the horse and subsequent prolonged wars with the Blackfoot. It appears that there were at least four distinct bands having their main winter camps in the western parts of the country. Of these, it seems that one was on a river near Helena, one near Butte, another smaller one somewhere east of Butte, and one somewhere in the Big Hole Valley. The Big Hole and Helena bands are said to have been large. There are traditions of two other bands, making probably six in all, but I did not learn the localities in which they had their headquarters. It seems that some of the bands did not always winter in the same locality, while others did. It is said that some parties wintered alternately at widely separate places in the eastern part of the country. The inference is that some were nomadic to a large extent, while others, probably the majority, generally wintered in definite "home" localities. In the fair season it seems that most 000

[2] If the Paloos are newcomers then they may have had the Nez Percé as southern neighbors; but the main settlements of the two tribes were far apart.